IN THE CLAIMS:

1. (Currently Amended) A device for generating a random signal, comprising:

a transient-state electronic circuit having an output terminal; and

means for ~~controlling warming and cooling of~~ generating thermal instability in said circuit by enabling and disabling said circuit;

wherein said ~~to generate a~~ random signal is generated at said output terminal in response to thermal instability generated in said circuit.

2. (Currently Amended) The device of claim 1, wherein the circuit comprises ~~semiconducting~~ semiconductor logic elements.

3. (Currently Amended) The device of claim 2, wherein said transient-state circuit comprises an oscillator circuit comprising ~~semiconducting~~ semiconductor elements and means for controlling warming and cooling of said oscillator circuit.

4. (Previously Amended) The device of claim 3, wherein said oscillator circuit comprises an oscillator input terminal connected to an oscillator output terminal for looping an output signal from the oscillator output terminal to the oscillator input terminal.

5. (Previously Presented) The device of claim 4, wherein said oscillator circuit comprises an inverter means having an inverter input terminal connected by a circuit to an inverter output terminal, said inverting means for inverting a signal applied to said inverter input terminal and outputting said inverted signal at said inverter output terminal, wherein said inverter

means comprises a switch located in said circuit, said switch for breaking the circuit between the inverter input and output terminals.

6. (Previously Presented) The device of claim 5, wherein said means for controlling warming and cooling of the oscillator circuit comprises switching means for breaking the circuit connecting the inverter output terminal to the oscillator output terminal.

7. (Previously Presented) The device of claim 5, wherein said inverter means comprises an odd number plurality of inverter means.

8. (Previously Presented) A device comprising at least one logic circuit for generating a random signal, the device comprising:

a plurality of random signal generating devices each comprising a transient-state electronic circuit comprising semiconductor logic devices and having an output terminal and control means for controlling warming and cooling of said transient-state circuit, said plurality of devices for continuously generating a random signal;

control elements for consecutively and alternatingly controlling warming and cooling of the transient-state circuit of each of said random signal generating device; and

a combining element for combining output signals from said random signal generating devices.

9. (Previously Presented) The device of claim 8, wherein said combining element comprises an EXCLUSIVE OR gate.

10. (Currently Amended) The device of claim 9, wherein the control means for controlling the transient-state circuit comprises at least one counter for performing a countdown sequence, and having an input terminal for receiving an output signal from the combining element, which is for in turn ANDing, ORing or XORing the output signals from the random signal generating devices, said device further comprising means for controlling shutdown of the ~~semiconducting~~ semiconductor elements of said plurality of random signal generating devices as a function of the countdown sequence.

11. (Previously Presented) The device as claimed in claim 1, in combination with a specific integrated circuit or a programmable integrated circuit.